

### **Abstract of the Disclosure**

A tube bundle heat exchanger has at least one channel that carries a heating or cooling medium, whereby the tubes of the tube bundle extend essentially axis-parallel to the channel longitudinal axis through the channel. The heating or cooling medium is directed through alternating rings and discs fastened to the respective jacket walls of the channel, in a zigzag pattern as seen in the axial direction of the channel. The channel has an essentially annular cross section. In at least one channel, the rings and discs accommodate and position all the tubes of one channel, each by means of cylindrical recesses, and the perimeter contour of the rings and discs on the medium flow-through side follow the mid-points of the outermost or innermost tube bundle tubes. The perimeter contour includes a web that surrounds all of the outermost or innermost tubes.